

REMARKS

Claims 1 to 11 are all the claims pending in the application, prior to the present amendment.

Applicants have amended the specification to correct a number of typographical errors at pages 1, 2, 14, 20-21, 24, 25, 29-30 and 39-40.

Claim 8 has been objected to because, according to the Examiner, it is not clear how the volatile siloxanes can be separated as “solids,” since the volatile siloxanes are themselves liquids.

Applicants disagree with this objection.

When the volatile siloxanes are cooled to 17°C or less, solids are formed, as disclosed in the specification at page 19, line 17 to page 20, line 6. Thus, contrary to the Examiner’s understanding, volatile siloxane is not a liquid at temperatures of 17°C or less, but is solid at that temperature, as clearly described in the specification. Accordingly, it is clear that the volatile siloxanes can, in fact, be separated as solids.

In view of the above, applicants request withdrawal of this objection.

Claims 1-11 have been rejected under the second paragraph of 35 U.S.C. § 112 as indefinite.

The Examiner states that the term “reduced volatile siloxane” is unclear, because the claims do not identify to what extent the volatile siloxane content should be reduced.

The Examiner states that this is particularly important because claim 9 is a product-by-process claim whose patentability is based on the product itself, and does not depend on its

method of production. The Examiner states that since the term “reduced” is not strictly defined, he cannot determine what level of volatile siloxane content is acceptable in claim 9.

The Examiner further states that the polyorganosiloxane of claim 9 is clearly unpatentable because the polymer need not be prepared using an equilibrium process or other synthetic approach wherein a considerable amount of volatile siloxane would inherently be present as a byproduct of the reaction.

In response, applicants have canceled claims 9-11 and have amended claim 1 to state that the heat stripping removes volatile solvents.

The above amendment to process claim 1 does not define the amount of volatile siloxane which is removed, but applicants submit that it is not necessary to recite in process claim 1 the amount which is removed.

In view of the above, applicants request withdrawal of this rejection.

Claims 1-2, 4-6 and 8-9 have been rejected under 35 U.S.C. § 102(e) as obvious over U.S. Patent Application Publication No. 2003/0059393 to Wrolson et al.

Applicants submit that Wrolson et al do not disclose or render obvious the subject matter of claim 1 as amended above and, accordingly, request withdrawal of this rejection.

The Examiner has indicated that claim 3 is allowable over the prior art. Applicants have amended claim 1 to incorporate the recitations of claim 3. Applicants have canceled claim 3.

The present invention as set forth in claim 1 as amended above is directed to a process for producing polyorganosiloxane-containing resin, comprising heat stripping a polyorganosiloxane-

containing resin in a slurry state to remove volatile siloxane and obtain a polyorganosiloxane containing resin, wherein the polyorganosiloxane-containing resin is a polyorganosiloxane-based graft copolymer obtained by polymerizing monofunctional and/or multifunctional radical polymerizable monomers in one or more steps in the presence of polyorganosiloxane-based particles.

Thus, the present invention heat strips a polyorganosiloxane-containing resin in a slurry state.

The Wrolson et al application discloses a method for making silicon emulsions having a low residual volatile siloxane oligomer content by stripping the emulsion, such as by steam stripping or steam distillation. In contrast, the present invention does not strip an emulsion, but rather strips a slurry. Wrolson et al do not teach or suggest the heat stripping of a polyorganosiloxane-containing resin in a slurry state.

In the case that the polyorganosiloxane-containing resin is a polyorganosiloxane-containing graft copolymer, when heat stripping of polyorganosiloxane particles is conducted in an emulsion state before graft modification as in the prior art, graft sites derived from a graft modifying agent undergo change in quality by heating, and shaped articles obtained from the resultant resin tend to provide poor physical properties. See the present specification at page 20, last two lines, to page 21, line 9.

Further, when a polyorganosiloxane-containing resin in a slurry state is heat stripped as in the present invention, there is an advantage that the slurry particle diameters are relatively thicker than the thickness of a foam membrane, to make the surface tension of foam readily uneven and thereby exert a significant preventing effect on foaming. In particular, the slurry

obtained by coagulating the polyorganosiloxane-containing resin in a latex state lowers significantly the activity of a surfactant present in the latex during coagulation, to make foaming less than in stripping of the corresponding emulsion, thus reducing the amount of a defoaming agent if any or making use of a defoaming agent unnecessary. See the present specification at page 10, lines 7-19.

In view of the above, applicants submit that Wrolson et al do not disclose or render obvious the subject matter of the present claims and, accordingly, request withdrawal of this rejection.

Claims 10 and 11 have been rejected under 35 U.S.C. § 102(b) as anticipated by the abstract for JP 10/204251.

As noted above, applicants have canceled these claims.

Claim 7 has been rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Wrolson et al.

Claim 7 of the present application is a dependent claim that depends from claim 6. Accordingly, applicants submit that claim 7 is not anticipated or suggested by Wrolson et al for the same reasons as discussed above.

Further, Wrolson et al do not inherently or otherwise disclose or suggest cooling to 17°C or less as recited in claim 7.

In view of the above, applicants submit that Wrolson et al do not disclose or render obvious the subject matter of claim 7 and, accordingly, request withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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